NEVADA NATIVE SPECIES SITE SURVEY REPORT

rev. WXP-2005-09

SELECTED SUPPLEMENTAL INSTRUCTIONS

Filling out electronic (Word) version of form: see additional tips and instructions at http://heritage.nv.gov/surintro.htm.

Filling out paper forms: please print the PDF version of the blank form from the above web address for this purpose.

General: when applicable, data **items in boxes are especially important** to record when possible. **See also the filled-out form example** at the above web address for guidance on appropriate data/format for each blank.

Surveyor/Reporter: please include e-mail address(es) if available.

Date of Survey: please note the **day-month-year order** when filling out these blanks.

Collection #: if this number belongs to someone other than the first surveyor/reporter listed, please specify whose it is.

GPS Projection/units: DO NOT record actual coordinates in this space; include them under Location Description instead. This space is for recording the **type of projection and units only**.

Location Description: we will work with whatever information you are able to supply, even if just a detailed verbal description. Keep in mind that the more independent, corroborating directions are supplied in a verbal description, the more precisely we will be able to map your information.

To minimize locational uncertainty in our databases, **we prefer to receive GPS data** documenting population locations and search areas whenever possible. The **next best alternative is to attach a photocopy of a map** (1:24,000 USGS topographic preferred), orthophotoquad, aerial photo, etc., with locations precisely drawn. **For this alternative, please use the following guidelines:**

1. DO NOT enlarge or reduce your photocopy. DO indicate the scale (i.e., 1:12,000) on the copy or the form blank.
2. **As you draw** features, continually **evaluate the precision level(s)** with which you are able to locate features on the copy, remembering that the **locational uncertainty** of lines printed on 1:24,000 topographic maps is usually within +/- 12.5 meters of their true locations on the ground. **When you are done, enter your maximum estimated locational uncertainty** in the appropriate blank(s) on the form.
3. Remembering that **we will digitize exactly what you draw**, please draw features as precisely as possible using one or more of the following methods:
   a. For **observed areas no larger than pen points** on the copy (< 12.5 meters diameter at 1:24,000 scale), **place fine points** on the copy, using color or arrows to make them more visible.
   b. For **observed areas longer than pen points in 1 dimension** (i.e., along small watercourses, trails, or other linear features) on the copy (> 12.5 meters diameter at 1:24,000 scale), draw **thin solid lines precisely along the occupied portions of such features**, using color or arrows if necessary to make them more visible.
   c. For **observed areas larger than pen points in all directions** on the copy (> 12.5 meters diameter at 1:24,000 scale):
      - draw **thin solid boundary lines**, without internal shading, showing the extents of the areas (polygons).
      - indicate **separate patches** by drawing **separate boundaries** for each area, and note separate population counts and other data for each such area where appropriate.
      - If a boundary follows the edge of a mapped feature (lake, stream, road, marsh, etc.), draw the boundary precisely on the edge of the feature.
      - **Where needed, add notes** to the map with instructions on where the boundary line is located, which other observations share the same boundary or portion(s) thereof, etc.
   d. **Any areas** for which you are **too uncertain of the exact location** to estimate locational uncertainty (i.e., relatively flat and featureless topography), draw the **smallest possible boundaries** (following 3.c. above) which **you are certain contain the true locations** of the observed areas somewhere inside them. **IMPORTANT: indicate on the copy or form which areas were drawn by this method, and DO NOT include them in your estimates of locational uncertainty**. If all areas were drawn this way, indicate this on the form, and **record +/- 0 as your locational uncertainty**. **Also pay special attention** to filling out the blanks for **Observed Area or Length Occupied** and **Percent of area/length occupied by the species** (see instructions below).
4. A hand-drawn sketch may be included to describe finer details

WE ALSO COMPILE NEGATIVE SEARCH AND POTENTIAL HABITAT DATA, and encourage you to include such information in your locational data, with each kind of area clearly labeled.

Map and/or GPS data estimated locational uncertainty: use the above guidance, and feel free to contact us if you need assistance determining appropriate positional accuracy. In general, uncorrected recreational-grade GPS units are accurate to within about 15 meters or 50 feet. Unless it is larger than this, disregard any "accuracy" displayed by such a unit, which only takes into account satellite numbers and geometry at any given time. In general, differentially-corrected

GPS data are accurate to within 3-5 meters (10-16 feet), and sometimes within less than 1 meter (3 feet). **Be sure to delete or strike out the given distance unit(s) that do not apply.**

Field #: this is for your convenience in referring to numbered features in notebooks, drawn on maps, etc.

Elevation: if possible, please record the **elevation range** within which the species was observed at this occurrence. **Be sure to delete or strike out the given distance unit(s) that do not apply. For estimating elevational uncertainty (the +/- blank), please use the following guidelines:**

- For **elevations read from a topographic map**, Digital Elevation Model (DEM), etc., indicate the amount by which you are "rounding" the elevations recorded; i.e., to the nearest 20 ft, 5 m, etc. (PLUS any error inherent in the topographic or DEM data themselves, if known). For example, when an elevation of 8000 ft is recorded, it is very helpful to know whether this was to the nearest 1000 ft, 500 ft, 100 ft, 50 ft, etc.
- For **elevations derived from GPS data**, elevational uncertainty tends to be about 1.5x the horizontal locational uncertainty (see above).

Observed Area or Length Occupied: this should be based on your **actual physical measurements, observations, and/or estimates** in the field, if any. Otherwise leave blank. DO NOT record areas or lengths derived from GPS or map data. Please specify the units (i.e., 80x20 ft, 250 m along stream, 2 acres, 100 square meters, 3.4 miles along road, etc.).

Land Manager: for private owners, please record contact information if possible under Comments, Other Knowledgeable People, or on back.

Extent of occurrence completely surveyed, % of potential habitat surveyed, etc.: for purposes of answering these questions, please consider the entire area you are documenting on this survey report, **or would have surveyed to completely document the occurrence represented on this survey report**, as the occurrence in question. DO NOT include areas you documented (or would have documented) on separate survey reports.

Percent of area/length occupied by the species: if the polygon(s) or line(s) you **captured via GPS, or drew on a map**, included an extra buffer distance, and/or significant areas of unsuitable or unoccupied habitat, and/or was only intended to contain (not delimit - see 3.d. above) area(s) occupied by the species, please estimate the **percentage of these polygon(s) or line(s) actually occupied** by the species on the ground. This DOES NOT pertain to Observed Area of Length Occupied (see above), which you should also try to measure or estimate if possible.

Census methods: these can include direct counts, visual estimates, extrapolation of density samples, transect or plot data, etc. If # of colonies / genets is the same, this line may be used to continue thedescription of census methods.

Phenologic Stages (plants): please estimate the percentage of the total observed individuals exhibiting each phenological stage on the date of the survey. **An individual may exhibit more than one stage simultaneously, and therefore the sum of the percentages will usually exceed 100%.**

Age Structure: these categories should be treated as mutually exclusive, and percentages recorded **should total 100%**.

Site Functions/Uses (animals): more than one may apply to a single occurrence - **please check all applicable**. Please give further details under Interactions.

Interactions: note the possible topics listed, and include any observations on these or other relevant topics.

Habitat Description: note the possible topics listed, and include any observations on these or other relevant topics. For convenience in developing longer species lists, rélevés, photography records, etc., for one or multiple related sites, a general-purpose Site Biological Inventory form is also available at http://heritage.nv.gov/surintro.htm, and may be attached to and referenced by the site survey form.

Overall Occurrence Quality: the formal definitions of these categories are based on the probabilities that the occurrence will persist for the next 20 years or 5 generations (whichever is greater), based on population viability analysis. The definitions are: Excellent = 98-100%, Good = 95-97%, Fair = 50-94%, and Poor = 0-49%. To the extent these probabilities can be estimated, they should be used to fill in the appropriate blank.

Identification of Taxon: please give your **honest assessment of your certainty** that the scientific name at the top of the form correctly identifies the organisms that were surveyed, 100% being without any doubts or reservations whatsoever, and 0% being certain the species is **mis**identified. Usually, 100% would only apply when the surveyor's specimens or observations (from this or another site, recently or previously) had been unequivocally confirmed by a taxonomic expert in the group of organisms in question; otherwise, 80-95% would be more appropriate. Certainties below 95% should be followed up with specimens and/or photographs submitted to a recognized expert or to the Nevada Natural Heritage Program for confirmation; certainties below 70% generally should not be submitted to the Nevada Natural Heritage Program. Please also fill in all information as to how the species was identified.

Photographs: we encourage submission of photographs in digital or other format along with your report; please fill in the **Attached** blank to indicate whether or not photographs accompanied each survey report. Such photographs are an important part of documenting a site, and of our quality-control process for ensuring accurately identified reports. They will also be considered (with your permission) for addition to our web gallery of Nevada rare species images (http://heritage.nv.gov/images.htm).

Other Knowledgeable Individuals: please only include people with knowledge about **this specific site**.